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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,512	12/11/2000	Mototsugu Abe	9792909-4921	3858

7590 11/22/2004

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EXAMINER	
CHEVALIER, ROBERT	
ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/734,512	ABE ET AL.	
	Examiner	Art Unit	
	Bob Chevalier	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *23-25* is/are allowed.

6)☒ Claim(s) *1-3,5-13,15-18,21 and 22* is/are rejected.

7)☒ Claim(s) *4,14,19 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

1. Claim 23 is objected to because of the following informalities: The expression "said correct audio signal" recited in line 10 of the present claim 23 should be replaced by --a correct audio signal--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For example:

(1) Claim 21 is unclear and improper since it is depended upon itself. Clarification is requested.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5-7, 9-13, 15-17, 21-22, are rejected under 35 U.S.C. 102(e) as being anticipated by Yokoyama et al.

Yokoyama et al discloses a digital audio reproducing apparatus that shows all the limitations recited in claims 1, and 11, including the feature of deleting an audio

signal in an anomalous segment (See Yokoyama et al's column 4, lines 45-49), the feature of generating a repair signal for repairing the signal of the deleted segment based on a correct audio signal deduced by referring to waveform of the audio signal before and after the deleted segment (See Yokoyama et al's column 4, lines 1-4, and lines 56-65, furthermore, see Yokoyama et al's column 29, lines 14-15), and the feature of inserting the repair signal into the deleted segment and connecting the same with the audio signal before and after the deleted segment as specified in the present claims 1, and 11. (See Yokoyama et al's column 4, lines 56-65, and column 29, lines 11-20).

With regard to claims 2, and 12, the feature of detecting an anomalous state of the audio signal and performing the processing when the anomalous state is detected as specified thereof is present in the cited reference of Yokoyama et al. (See Yokoyama et al's Figure 18).

With regard to claims 3, and 13, the feature of generating the repair signal by the waveform with the greatest similarity in the step of generating the repair signal and smoothly connecting the inserted repair signal and the audio signal before and after the deleted segment in the step of connecting the audio signal as specified thereof is present in Yokoyama et al. (See Yokoyama et al's column 4, lines 56-65, and column 29, lines 11-20).

With regard to claims 5, and 15, the feature of calculating a correlation function for the audio signal before and after the deleted segment in the step of deducing the audio signal and evaluating the similarity by referring to the calculated correlation

function as specified thereof is present in Yokoyama et al. (See Yokoyama et al's column 31, lines 24-32).

With regard to claims 6, and 16, the feature of calculating a correlation function for the audio signal before and after the deleted segment in the step of generating the repair signal and cross fading the audio signal as specified thereof is present Yokoyama et al. (See Yokoyama et al's column 31, lines 24-32, and column 29, line 17).

With regard to claims 7, and 17, the feature of cross fading the audio signal before and after the deleted segment to smoothly connect it in the step of connecting the audio signal as specified thereof is present in Yokoyama et al. (See Yokoyama et al's column 31, lines 24-32, and column 29, line 17).

With regard to claims 9, and 21, the feature of detecting a sudden fluctuation in the audio signal as specified thereof would be inherently present in the cited reference of Yokoyama et al. Because, Yokoyama et al discloses that the anomalous state of the audio signal is due to interruption or break in the reproduced audio signal and that one of ordinary skill in the art would readily recognize that a fluctuation can also be regarded as a break or an interruption in a generated continuous signal. (See Yokoyama et al's column 3, lines 24-27).

With regard to claims 10, and 22, the feature of deleting an audio signal of a noise segment of noise and discontinuity due to shot noise superposed on the audio signal or a signal skip as specified thereof is present in the cited reference of Yokoyama et al. (See Yokoyama et al's column 4, lines 45-49, column 3, lines 24-27, and column

20, lines 53-61, where it is disclosed the deletion of the failing audio signal due to noise or skip or interrupted signal).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 8, 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al in view of Fujishima.

Yokoyama et al discloses an audio reproducing apparatus that shows substantially the same limitations recited in claims 8, and 18, including the feature of detecting anomalous state in the reproduced audio signals as specified in the present claims 8, and 18. (See Yokoyama et al 's Figure 18).

Yokoyama et al fails to specifically disclose the feature of detecting the anomalous state of the audio signal by detecting skip scanning of a reading means when reading an audio signal from a recording medium as specified in the present claims 8, and 18.

Fujishima discloses a reproducing apparatus which shows the feature of detecting an anomalous state of a reproduced audio signal produced by bad reading or bad scanning of the reproducing means on a disk. The bad reproduction operation is due to scratch or pin hole formed on the disk and which scratch or pin hole, Examiner noticed, would forcedly provide bad scanning such as jump or skip scanning as claimed. (See Fujishima's column 1, lines 14-20).

It would have been obvious to one skilled in the art to modify the Yokoyama et al's reproducing apparatus wherein the reproducing/detecting means provided thereof would incorporate the capability of a disk reproducing/detecting means in a manner so as to have the audio signal reproduced from a disk recording medium and so as to be able to detect the anomalous state of the reproduced audio signal due to bad scanning such as jump or skip scanning in the same conventional manner as is shown by Fujishima. The motivation for such a modification is to be able to reproduce quality audio signal from a recording medium at any desired time. Fujishima makes it clear that is well known and desirable to reproduce quality audio signal from a recording medium at any desired time.

8. Claims 4, 14, 19-20, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 23–25 contain allowable subject matter over the prior art of record.

10. The following is a statement of reasons for the indication of allowable subject matter:

The claimed invention is directed to an apparatus magnetically recording and reproducing video/audio signal by a video rotary head and audio rotary head. The independent claims identify the feature of "deleting discontinuity or noise occurring in a audio/video signal caused by a track skip when a track skip is detected at the time of high speed reproduction". The closest prior art, Yokoyama et al discloses a conventional audio reproducing apparatus, either singularly or in combination fails to anticipate or render the above underlined limitations obvious.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bob Chevalier whose telephone number is 703-305-4780. The examiner can normally be reached on MM-F (9:00-6:30), second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ROBERT CHEVALIER
PRIMARY EXAMINER

B. Chevalier
November 19, 2004.